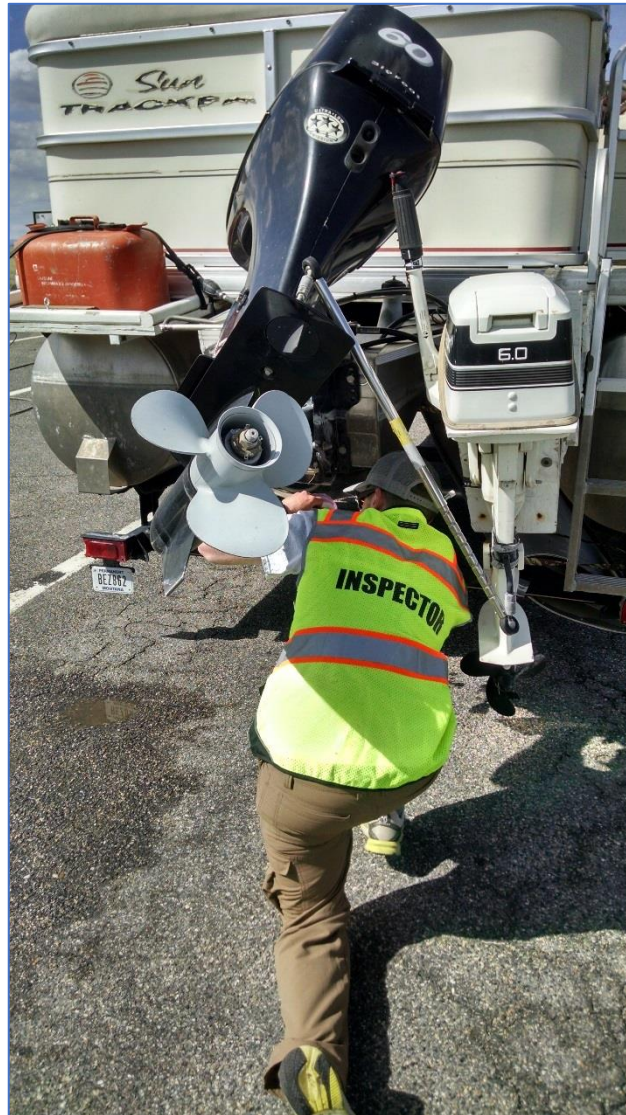




Montana Fish, Wildlife & Parks



2016

Watercraft Inspection Station Annual Report

Report Prepared by: Tom Boos, Zach Crete, Jayden Duckworth, Gail Johnson,

Craig McLane, Stacy Schmidt, and John Wachsmuth

Contents

INTRODUCTION	1
NEW IN 2016.....	1
WATERCRAFT INSPECTION STATION LOCATIONS.....	2
Figure 1. 2016 FWP Seasonally-Permanent and Roving Watercraft Inspection Stations	3
Table 1. Summary of FWP 2016 Watercraft Inspection Station	4
Figure 2. Motorized and non-motorized drive by numbers and as a percentage of total boats passing Watercraft Inspection Stations in 2016	5
WATERCRAFT INSPECTION STATION TOTALS.....	5
Figure 3. Number of Watercraft Inspections by Year.....	5
Figure 4. Number of Watercraft Inspections by Day for 2016.	6
OTHER WATERCRAFT INSPECTIONS	6
ORIGIN OF WATER USERS, RELATIVE RISK, AND BOATER MOVEMENT	6
Figure 5. Distribution of Surveyed Water User Postal Codes from Data Compiled from 2012-2015	8
HIGH RISK BOATS.....	9
Figure 6. Number of High-Risk Boats by Station	9
Figure 7. Percentage of the total inspections at each station that were high-risk in 2016.	9
IN-STATE AND OUT-OF STATE BOATS.....	10
Figure 8. Percentage of Out-of-State and In-State Vessels by Station.....	10
AIS OBSERVED	10
Table 2. Data Summary of 2016 Watercraft Inspection Stations.....	11
Figure 9. Occurrences of Fouling During the 2016 Inspection Season.....	12
LIVE FISH	12
Table 3. Occurrences of Illegal Live Fish in 2016	12
LIVE BAIT OTHER THAN FISH.....	12
Figure 10. Percentage of Anglers Possessing Live Bait at the Time of Inspection in 2016	13
BOAT CONDITION AND CLEANING FREQUENCY.....	13
Figure 11. Frequency of Boat Cleaning Among Surveyed Users.	13
COMMERCIALY HAULED AND OVERSIZE VESSEL TRACKING AND INSPECTION.....	13
Figure 12. Percentage of Commercially-Hauled Boats Bound for MT	14
SUMMARY	14
APPENDIX A. ORIGIN OF SURVEYED WATER USERS	16
APPENDIX B. THE TOP 45 PREVIOUSLY VISITED WATERBODIES.	17
APPENDIX C. THE TOP 45 DESTINATION WATERBODIES.....	18

Montana Fish, Wildlife, & Parks

2016 ANNUAL WATERCRAFT INSPECTION STATION REPORT

INTRODUCTION

The Montana Department of Fish, Wildlife & Parks (FWP), Montana Department of Agriculture (MDA), Montana Department of Natural Resources and Conservation (DNRC), and Montana Department of Transportation (MDT) collectively implement the Montana Aquatic Invasive Species (AIS) Management Plan. The goal of the Plan is to minimize the harmful impacts of AIS by limiting or preventing the spread of AIS into, within, and out of Montana. This goal is achieved through coordination and collaboration between our partner agencies and stakeholder groups; prevention of new AIS introductions in the state; early detection and monitoring of invasive aquatic plants, animals and pathogens; control and eradication of new and established AIS populations; and outreach and education efforts. This report focuses on the prevention of new AIS introductions in the state, which is accomplished primarily through watercraft inspection stations.

Montana FWP has been operating watercraft inspection stations since 2004. Watercraft inspections have always been mandatory for anglers and have been required for all other boaters since 2011. As watercraft and water-based equipment are the most common vector for the transport and subsequent introduction of AIS, these check stations are a key part of Montana's overall prevention strategy. Montana Department of Agriculture operated a handful of watercraft inspection stations from 2009-2012, but due to changing authorities FWP now operates all of Montana's State-run stations. Glacier National Park, Yellowstone National Park, and the Bighorn Canyon National Recreation Area operate watercraft inspection stations within Park boundaries, and the City of Whitefish and the Blackfeet Nation have been inspecting boats for several years. The Flathead and Swan Lakers also conduct volunteer boat inspections on their respective lakes on selected days.

Staff at State-run inspection stations inspect boats and equipment for any aquatic organisms, standing water, illegal bait and fish, and educate the public about the importance of following Clean, Drain and Dry protocols. FWP also gathers information on water user origin and movement, level of awareness of AIS, equipment cleaning habits and more. These data not only give the inspector insight into the relative risk of that vessel for carrying AIS, they are vital to the overall guidance of the FWP AIS Program.

NEW IN 2016

An eastern supervisor was hired to help with logistics, operations, and increase the monitoring effort across the state. Having additional management for the east freed up time for the AIS specialists to accomplish other goals in the western half of the state. Also, new administrative rules came out requiring all boats leaving a body of

water to remove all vegetation from the boat and trailer and that boat plugs had to be pulled, but the boat plugs do not have to remain out during transport.

This summer FWP operated several temporary watercraft inspection stations in response to an outbreak of proliferated kidney disease (PKD) on the Yellowstone River. Thousands of mountain whitefish were killed prompting FWP to close or restrict multiple sections of the river to stop the spread of PKD to other Montana waters. The AIS program, in conjunction with FWP wardens and fisheries biologists, set up watercraft inspection stations at several locations to decontaminate boats that had been in contact with Yellowstone River water. Stations operated on I-90W outside Livingston, at the Greycliff Rest Area I-90E, at the rest area on I-90E between Billings and Hardin, in Ennis on US-287S, and in Whitehall on I-90W. It should be noted that existing inspection stations were relocated to help with this challenge on the Yellowstone River. In this effort 499 boats were inspected and decontaminated as needed.

In 2016, FWP entered a cooperative agreement with Flathead Basin Commission (FBC) and delegated mandatory inspection authority to FBC. As such, FBC opened the Clearwater Watercraft Inspection Station the beginning of March and a station in Pablo in April with hope to intercept any boats bound for the Flathead Basin early in the season. In addition, FBC in cooperation with Working Dogs for Conservation operated mussel sniffing dogs at the FWP-run inspection stations at Clearwater and Ravalli.

WATERCRAFT INSPECTION STATION LOCATIONS

Montana's watercraft inspection station sites are selected based on angler pressure, boater movement, estimated risk of AIS introduction, safety, logistics, and input from other agencies and stakeholder groups. Much analysis has gone into site locations, length of season, and other logistics over the years, and assessment tables have been developed which gives each station a score based on empirical and qualitative data. Those scores help guide discussion on how FWP and its partners can best protect Montana from AIS. FWP semiannually invites key agency and stakeholder representatives to meet for a day-long meeting to go over the previous year's data, logistical considerations, available funding, and to review new research and trends of AIS movement, viability, etc. Based on this discussion, FWP then develops a plan for the following inspection season locations and hours of operation.

In 2016, following this discussion, FWP selected the locations listed in Figure 1 and Table 1 to operate stations. As in the last few years, FWP has focused much of its effort on border stations to prevent AIS from entering the state, but has also continued to have a significant presence at internal locations and popular waterbodies. The goal of this balanced approach is to:

1. Intercept AIS at Montana's borders.
2. Prevent the internal spread of AIS already present in the state, knowing that there are likely populations of AIS that biologists have not found yet.
3. Reach those users who may not encounter a border or highway station during their travels.
4. Provide a presence at Montana's most popular waterbodies for outreach and education as well as providing additional prevention.

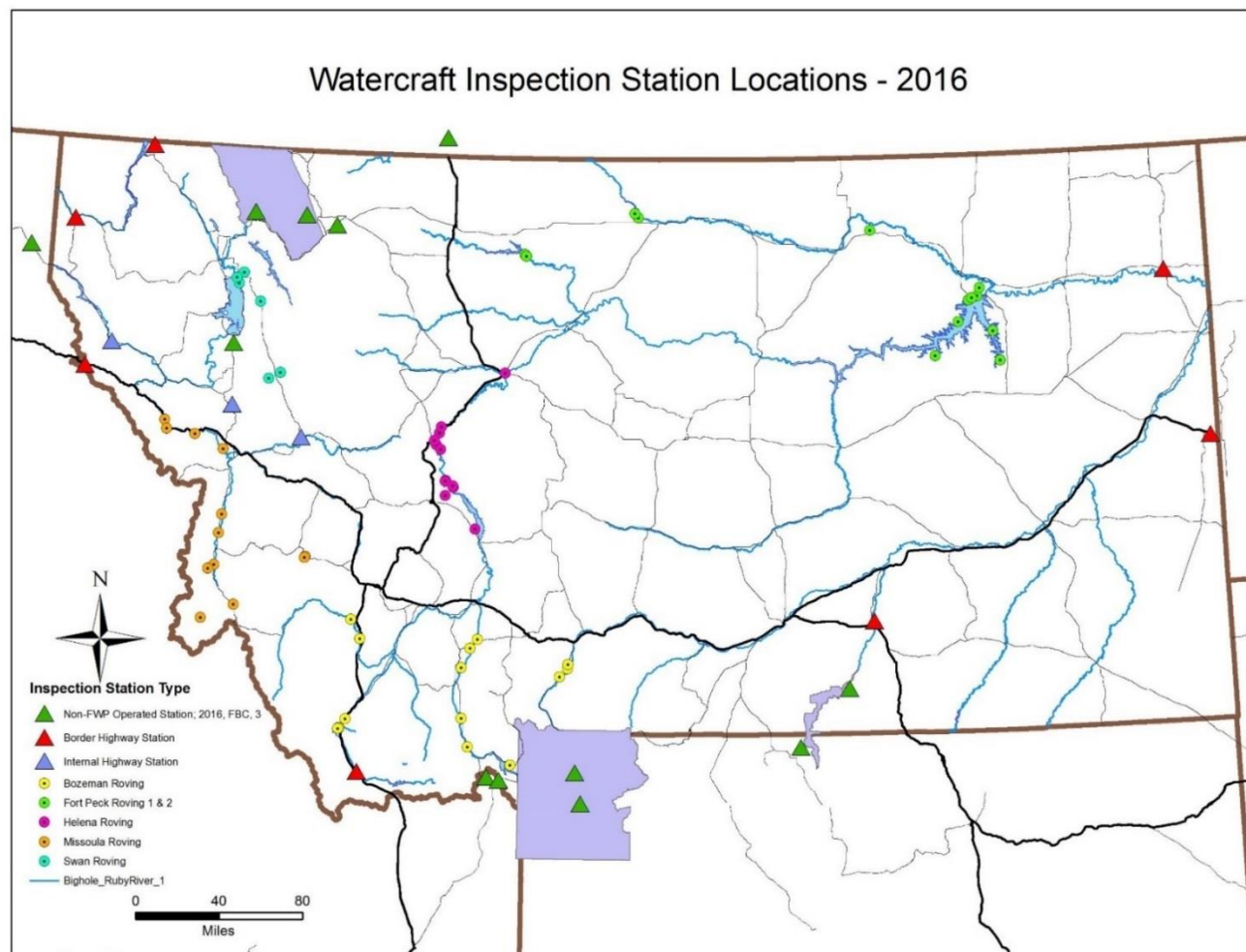


Figure 1. 2016 FWP Seasonally-Permanent and Roving Watercraft Inspection Stations

One issue that continues to play a large role in the selection and running of stations is the shortage of workers and housing in the eastern half of Montana. For the past four years, it has been very difficult to find local staff at the wages the Program can pay, or to provide housing for potential workers from outside the area. Because of this situation, the Hardin and Culbertson stations were only staffed 4 days a week instead of the desired 7 days a week in 2016, and the Billings roving crew was never staffed. On a positive note, the program operated the Culbertson, Hardin, and Wibaux stations through all of September for 4 days a week which provided more protection later in the season than typical and these data will assist in future decision making on the length of season in the future. The FWP AIS Management Team continues to try to find creative solutions to this ongoing problem.

Another challenge the AIS Program continues to face is that many boaters don't comply with the law and drive past watercraft inspection stations (Figure 2). Over the last two seasons we purchased 5 large trailered reader board signs that we place in key locations to get better compliance. Despite additional signage, total drivebys were slightly higher in 2016 (5,405) than in 2015 (5,160). In 2017, we plan on purchasing more reader board signs, additional outreach and education, and continue with a law enforcement presence to achieve greater boater compliance.

Table 1. Summary of FWP 2016 Watercraft Inspection Station

Station Name	Hwy	Direction of Travel	Open days/week	Maximum Hours per day	Personnel per week	Start date 2016	End date 2016	Total Inspections	Total Failed Interviews
Border stations									
Culbertson	US 2	West	4	10	3	06/30	10/01	111	5
Dena Mora	I-90	East	7	12	4	5/22	9/05	1,832	5
Dillon	I-15	North	4	12	3	4/21	8/30	674	28
Eureka	US 93	South	4	10	1	8/23	9/23	101	0
Hardin	I-90	West	4	12	4	5/20	10/02	2,541	27
Troy	US 2/ MT 56	East/North	7	12	4	5/21	9/5	3,225	45
Wibaux	I-94	West	7	10	4	5/29	9/28	550	5
Interior stations									
Clearwater Junction (FWP)	MT 200/83	East/West	7	12	7	05/19	10/02	10,873	8
Clearwater Junction (FBC)	MT 200/ MT 83	East/West	7	12	4	03/03	05/18	3,179	4
Pablo (FBC)	US 93	North/South	7	12	4	03/30	05/19	711	7
Ravalli	US 93	North	7	13	6	5/20	10/02	7,782	46
Thompson Falls	MT 200	East	7	12	4	5/23	9/5	2,735	32
Roving Crews									
Billings Area	N/A	N/A	0	0	0	N/A	N/A	N/A	N/A
Bozeman Area	N/A	N/A	4	10	2	5/25	8/07	200	0
Fort Peck 1	N/A	N/A	4	10	2	5/28	8/11	466	1
Fort Peck 2	N/A	N/A	4	10	2	5/28	8/13	694	18
Helena Area	N/A	N/A	4	10	2	5/19	9/09	1,414	1
Missoula Area	N/A	N/A	4	10	2	5/20	8/28	572	11
Swan Area	N/A	N/A	4	10	2	5/19	8/28	1,275	2
Swan Lakers	N/A	N/A	Varied	Varied	Varied	July	August	88	0
Yellowstone River Closure Stations	I90W, I90E, US 287S,	N/A	Varied	Varied	Varied	August	August	499	4
TOTALS								39,522	249

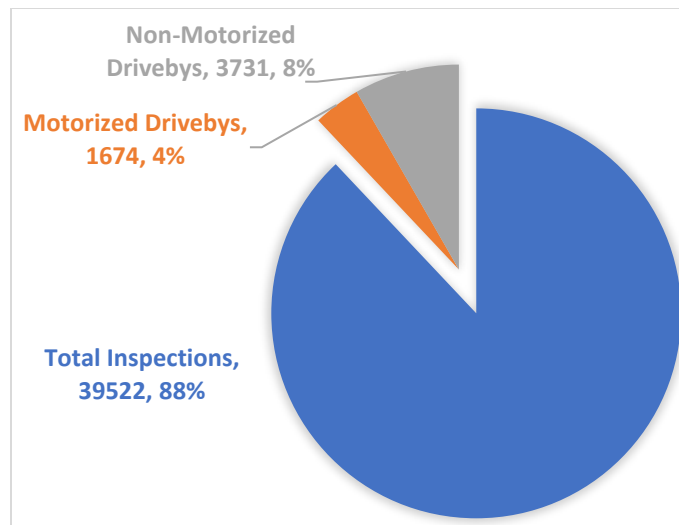


Figure 2. Motorized and non-motorized drive by numbers and as a percentage of total boats passing Watercraft Inspection Stations in 2016

WATERCRAFT INSPECTION STATION TOTALS

FWP performed 39,522 watercraft inspection interviews and inspected 47,426 watercrafts (sometimes multiple watercraft hauled by an individual) and provided outreach and education to nearly 90,000 people during the 2016 field season, which is the highest number since the inception of the watercraft inspection station program (Figure 3). The high numbers were likely due to the increase in operation days at several of the busier inspection stations. Most stations in 2016 operated for a fifteen-week period between May 18 and Labor Day, although some ended earlier or stayed open longer based on employee availability or agreements with program partners. Not surprisingly, the July 4th weekend was again the busiest period for boater movement (Figure 4).

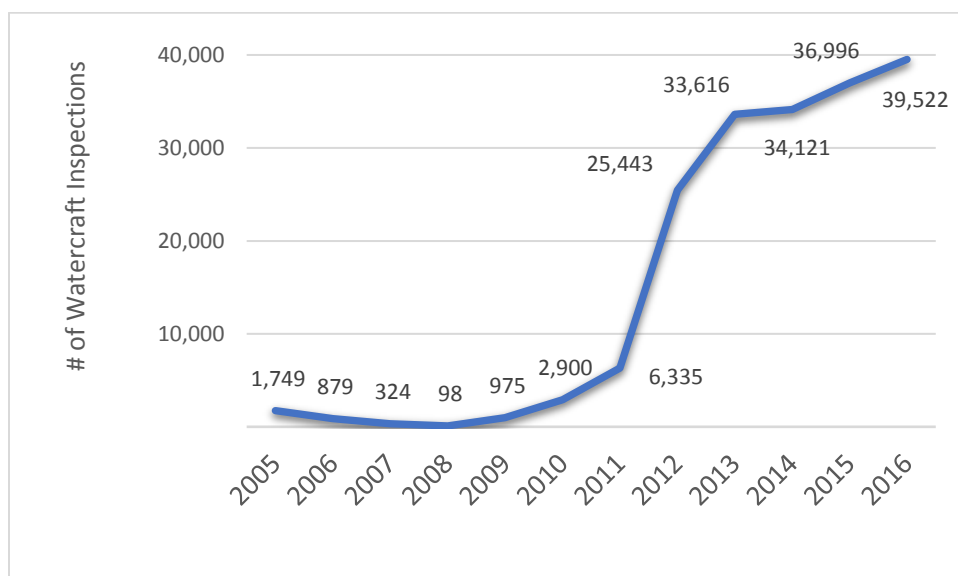


Figure 3. Number of Watercraft Inspections by Year.

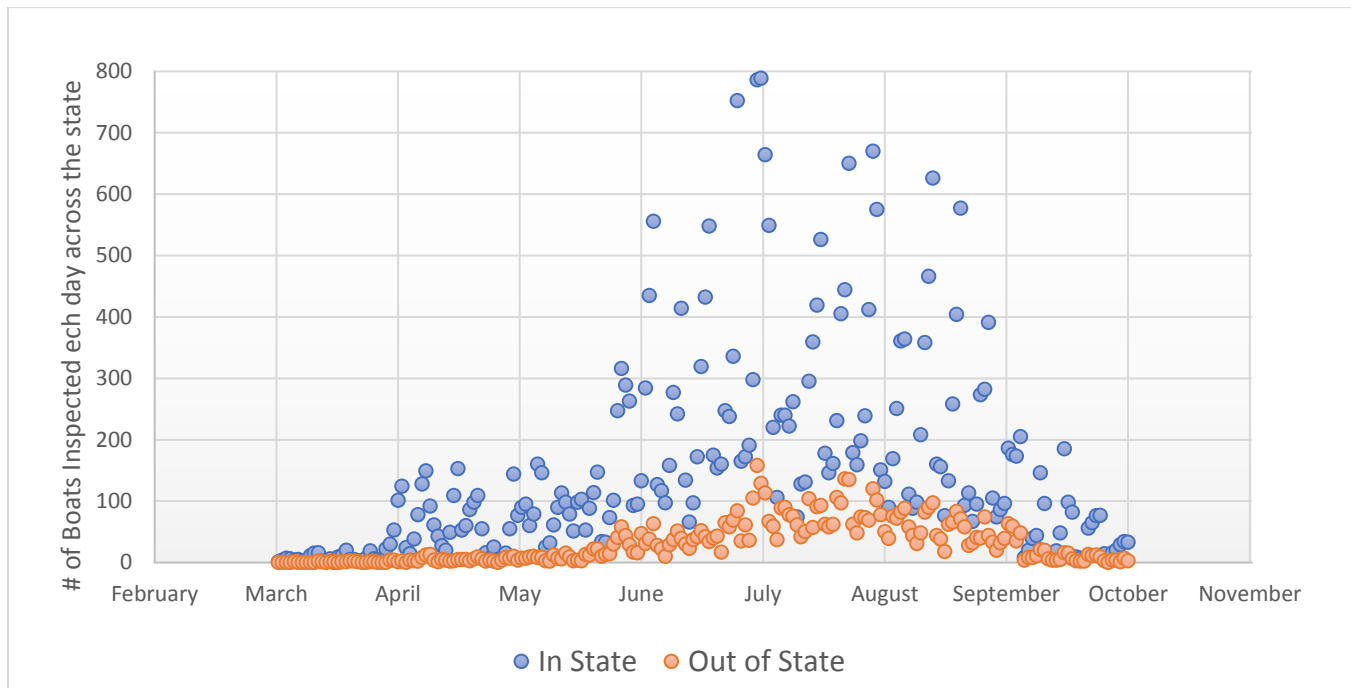


Figure 4. Number of Watercraft Inspections by Day for 2016.

OTHER WATERCRAFT INSPECTIONS

Besides inspections conducted at border, highway, and roving locations, FWP staff completed inspections of watercraft or equipment as needed. Most of these inspections were of commercially-hauled watercraft that intended to launch in Montana. FWP is alerted to the entry of all commercially-hauled watercraft into the state through a Department of Transportation notification system, and all drivers carrying vessels that intend to launch in Montana waters receive a follow-up call and, if warranted, an inspection. Once we get the information on these boats we notify our western partners that a boat has entered Montana that may be heading to another state. Other times FWP receives calls from companies that are conducting work in or near waterbodies to ensure that equipment coming from out-of-state is not carrying AIS. FWP staff also checks and decontaminates boats from partners as needed and responds to members of the public who had purchased boats from out-of-state and wanted them inspected before launching in Montana.

ORIGIN OF WATER USERS, RELATIVE RISK, AND BOATER MOVEMENT

The origin of watercraft and subsequent movement is important information that helps guide the placement of FWP watercraft inspection stations and monitoring priorities, and helps inspectors assess relative risk. Those boats traveling from eastern states tend to come from areas where zebra mussels, quagga mussels, and Eurasian watermilfoil (EWM) are prevalent, such as the Great Lakes region. Those coming to Montana from western states such as Washington, Idaho and Oregon are likely to have been in waterbodies infested with EWM, other invasive aquatic plants, or Asian clams. Those from more southwestern states could be carrying quagga mussels from the lower Colorado River System. The origin of in-state boats is important as well, as they might be coming

from waters positive for New Zealand mudsnails (NZMS), EWM, curlyleaf pondweed (CLP), flowering rush, or some other AIS that biologists have not encountered before in the state, but overall Montana boats are typically lower risk than out-of-state boats.

Of the 39,522 boats that passed through inspection stations during the 2016 season, 83% were from Montana. After Montana, the most common states/provinces of origin for surveyed users were from Washington, followed by Idaho, Oregon, California, Colorado, Utah, Wyoming, and Alberta. For a complete breakdown of origin and movement of water users by state, refer to Appendix A, B, and C.

Figure 5 shows the origin of surveyed water users from 2012-2015 and illustrate the great distances that people travel to recreate in Montana. As explained earlier, it is important to the overall prevention strategy to contact both out-of-state and in-state water users to reach as much of the public as possible. If the program were to operate only border stations, many Montana residents would never encounter an inspection station and receive the education and information on AIS presented there, and vice-versa. A good example of this scenario is Fort Peck, which is heavily infested with EWM and many Montana residents visit the lake and then return home to areas not known to harbor the plant. If the state operated only border check stations, few of those users would pass through a station on their way to and from the lake and would not receive information on how to reduce the chances of spreading EWM and other AIS.

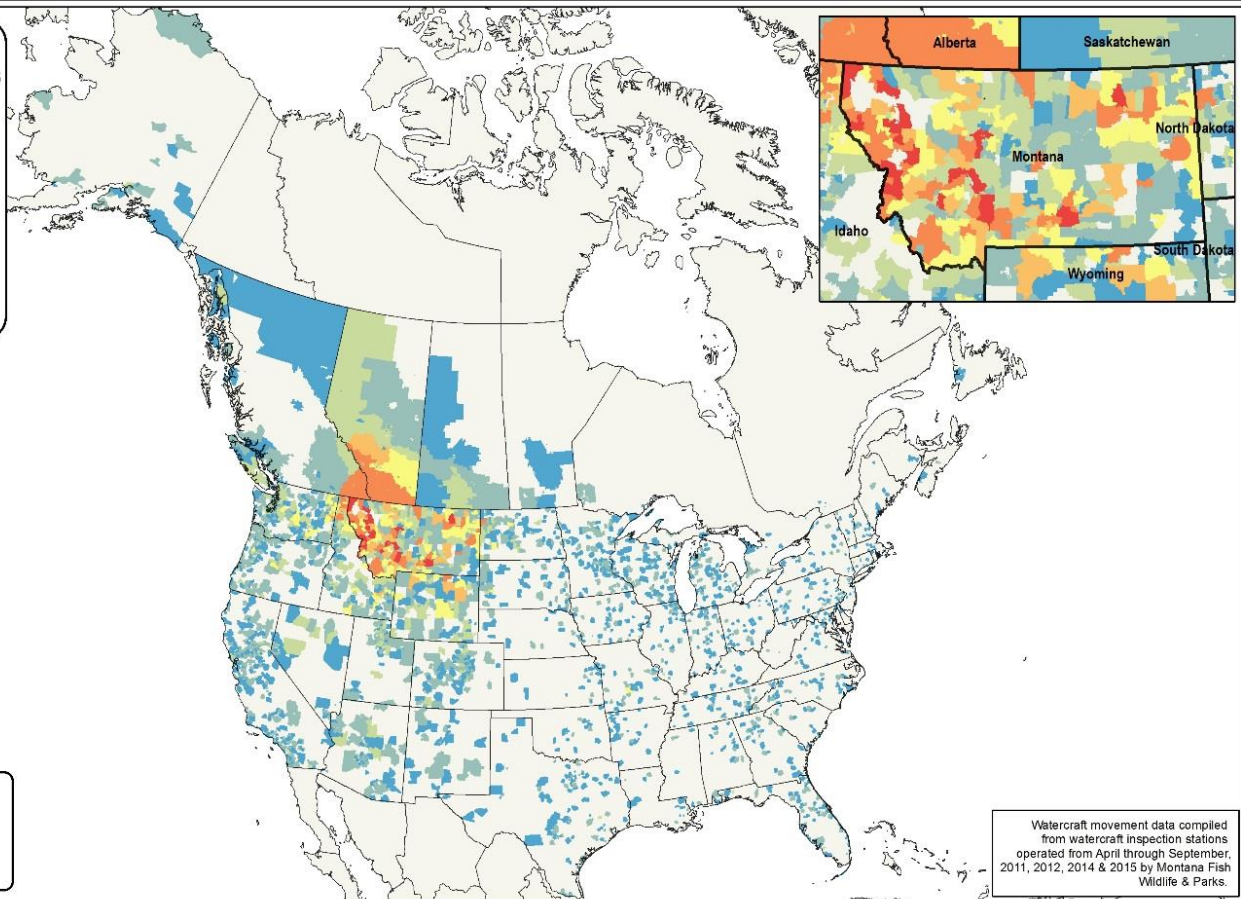
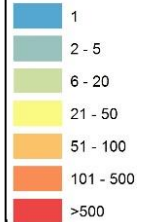


Watercraft Movement into Montana

Watercraft Inspection Station Results 2011, 2012, 2014, 2015

Montana Mussel Response Team, December 2016

Number of Times a Postal or Zip Code was Recorded at Montana Check Stations



AllYearsCompiled_InspectionSitesByPostalZipCode.pdf
Created by Montana Mussel Response GIS Team
W:\Projects\524_AIS\StateofEmergency\AllYearsCompiled_InspectionSitesByPostalZipCode.mxd
12/21/2016

Watercraft movement data compiled from watercraft inspection stations operated from April through September, 2011, 2012, 2014 & 2015 by Montana Fish Wildlife & Parks.



Figure 5. Distribution of Surveyed Water User Postal Codes from Data Compiled from 2012-2015

HIGH RISK BOATS

FWP categorizes high-risk boats as motorized boats that launched in a waterbody in a zebra or quagga mussel-positive state less than 30 days ago, or are from a mussel-positive state. These boats are more likely to be carrying adult or veliger (larval) mussels, therefore extra time and care is taken during inspection of these boats. Determining which stations see the most high-risk boats helps in cost-benefit analysis and in program guidance. In 2016, there were a total of 1,578 high-risk boats that passed through FWP inspection stations, which was 4% of all inspections. The station with the highest number of high-risk watercraft was Wibaux, followed by Ravalli, Dena Mora, and Dillon (Figure 6). It is also useful to look at the total high risk boats as a percentage of total inspection at a given station (Figure 7). The station with the highest percent of total inspections that are high-risk was Wibaux followed by Culbertson.

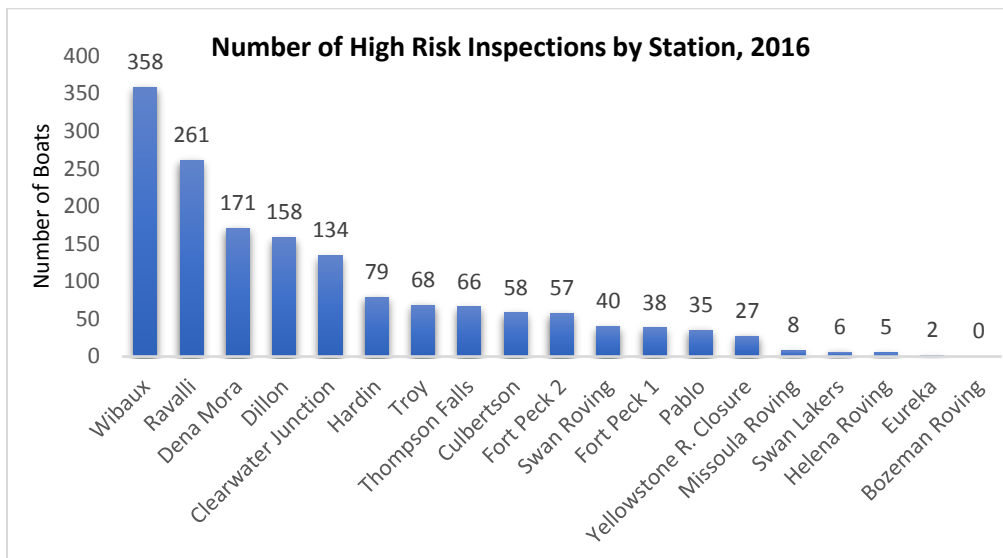


Figure 6. Number of High-Risk Boats by Station

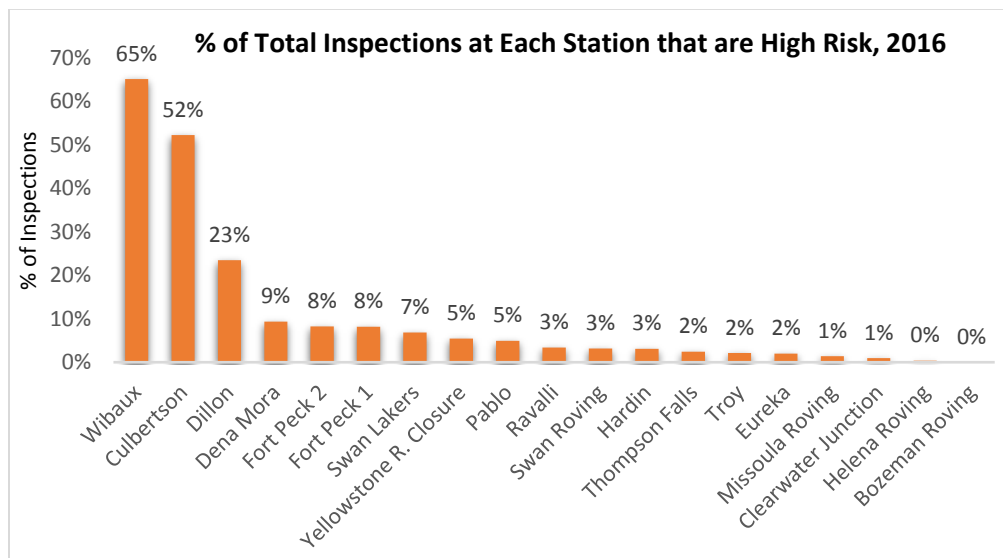


Figure 7. Percentage of the total inspections at each station that were high-risk in 2016.

IN-STATE AND OUT-OF STATE BOATS

Figure 8, which shows the percentage of in-state vs out-of-state boats at all seasonally permanent and roving inspection stations, illustrating that border stations see higher percentages of out-of-state boats than internal stations and roving crews. However, internal stations are still extremely important to the overall prevention strategy. First, many in-state boats recreate regularly in mussel, EWM, and other AIS-positive waters and then return home to Montana. It is also common for Montana residents to purchase used boats from out-of state, particularly from Minnesota. Internal stations provide another level of protection for these in-state boats that might miss inspection at the border. Second, internal stations help prevent movement of AIS between Montana waters. In-state boats might be carrying EWM, NZMS, illegal bait/live fish, or an AIS that is not yet detected in Montana. There is often a delay between the time that an AIS becomes established in a waterbody and the time it is detected so internal stations can reduce that delay.. Internal inspection stations help contain AIS and minimize the potential spread among Montana waters.

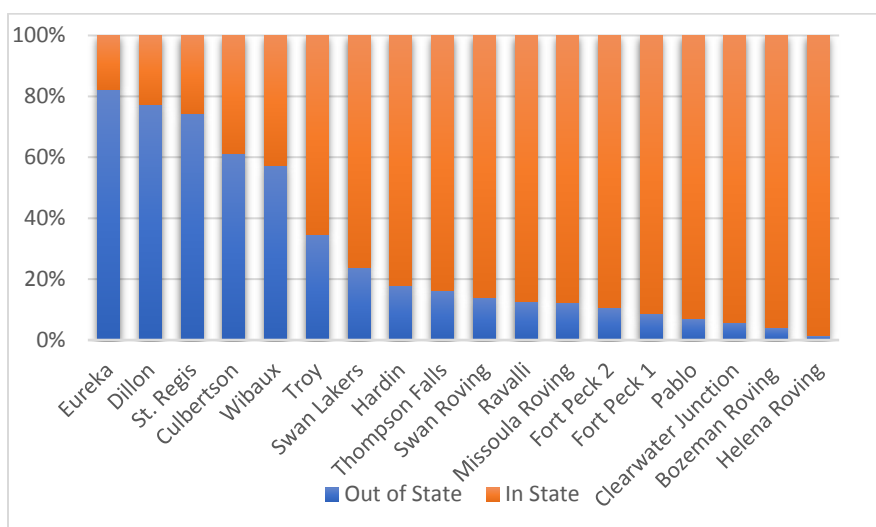


Figure 8. Percentage of Out-of-State and In-State Vessels by Station.

AIS OBSERVED

Out of the 39,522 boats that were inspected during the 2016 field season, 250 (<1%) boats had some type of fouling (Table 2 and Figure 9). Standing water (water in bilges, live wells, etc.) was the most common type of boat fouling, closely followed by vegetation. Standing water is a concern because it can carry mussel larvae, disease-causing pathogens, and plant fragments. Zebra or quagga mussels were found on 9 boats over the course of the season, all of which were dead.

When a Dreissenid mussel-infested boat or piece of equipment is found, protocol mandates that staff from the FWP AIS management team is contacted and oversee decontamination of that watercraft. If the boat is especially complex, marine mechanics are brought in to aid in the decontamination process. Boats must pass a second inspection before they can launch in Montana waters. If a boat or piece of equipment is carrying vegetation or any other AIS besides mussels, the inspectors remove the AIS, decontaminate the boat on site, and then release it.

Table 2. Data Summary of 2016 Watercraft Inspection Stations *Some inspections have more than one fail type, so fail details don't equal total failed inspections.

Station	Out-of State	In-State	Total	Zebra/ Quagga Mussels	Eurasian watermilf oil (EWM)	Curlyleaf pondweed (CLP)	Other Vegetation	Standing Water	Marine Organisms	Illegal Bait	Illegal Fish	Other	Total Failed Boats
Border Stations													
Culbertson	68	43	111	0	0	0	0	5	0	1	0	0	5
Dena Mora	1,363	469	1,832	0	0	0	0	2	3	0	0	0	5
Dillon	522	152	674	1	0	0	2	20	0	0	0	5	28
Eureka	83	18	101	0	0	0	0	0	0	0	0	0	0
Hardin	456	2,085	2,541	4	0	0	3	12	6	0	1	1	27
Troy	1,121	2,104	3,225	0	6	5	26	13	1	0	1	2	45
Wibaux	316	234	550	0	0	0	2	1	0	1	0	2	5
Interior Stations													
Clearwater (FWP and FBC)	831	13,221	14,052	0	0	0	3	10	0	0	0	0	12
Pablo (FBC)	50	661	711	2	0	0	0	3	0	0	0	2	7
Ravalli	990	6792	7,782	2	0	2	3	36	0	0	0	3	46
Thompson Falls	448	2,287	2,735	0	5	8	19	7	0	0	0	0	32
Roving Stations													
Billings Roving	0	0	0	0	0	0	0	0	0	0	0	0	0
Bozeman Roving	8	192	200	0	0	0	0	0	0	0	0	0	0
Fort Peck 1	40	426	466	0	0	0	1	0	0	0	0	0	1
Fort Peck 2	74	620	694	0	13	0	3	1	0	1	0	0	18
Helena Roving	19	1,395	1,414	0	0	0	0	1	0	0	0	0	1
Missoula Roving	70	502	572	0	0	0	9	3	0	0	0	0	11
Swan Roving	179	1,096	1,275	0	0	0	2	0	0	0	0	0	2
Swan Lakers	21	67	88	0	0	0	0	0	0	0	0	0	0
Yellowstone River Closure Stations	61	186	247	0	0	0	0	4	0	0	0	0	4
Totals	6,756	32,766	39,522	9	24	15	73	118	10	3	2	14	249*

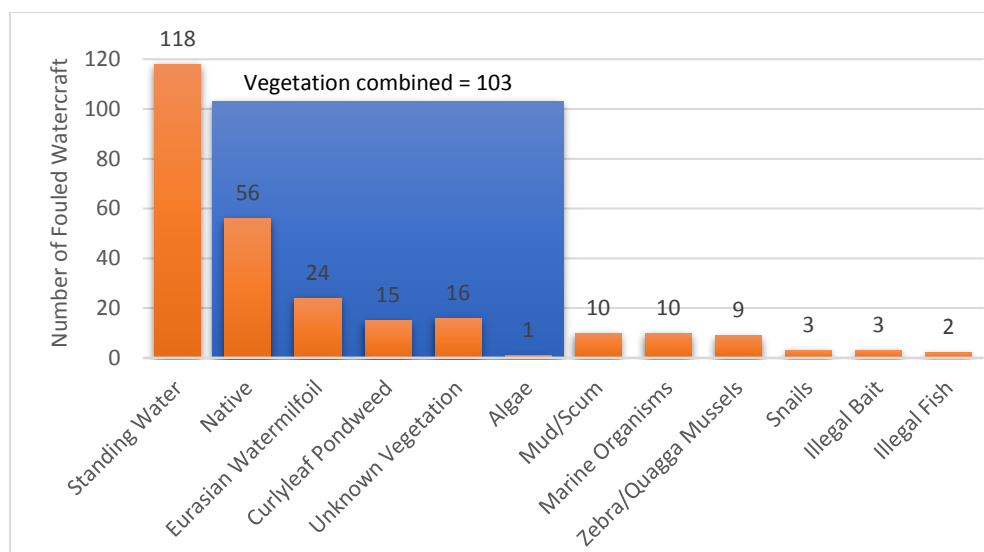


Figure 9. Occurrences of Fouling During the 2016 Inspection Season

LIVE FISH

It is illegal to transport live fish, including bait fish, into Montana without authorization from FWP, and it is unlawful to possess or transport live fish away from the body of water in which the fish were taken anywhere in the western and central fishing district. Live non-game fish may be used as bait in certain waters in the central and eastern fishing districts. These regulations exist to prevent the introduction of non-native fish into Montana's waters and because the fish and the water they are transported in could be carrying disease-causing pathogens, weeds, snails, mussels, etc. In 2016 inspectors found 2 cases of illegal live fish over the course of the season (Table 3) which is less than previous years. Standard protocol for inspection staff is to confiscate any illegal live fish and call an FWP game warden.

Table 3. Occurrences of Illegal Live Fish in 2016

Date	Station Location	Waterbody Source	Species	Region
8/6/2016	Hardin	Tongue River Reservoir	1 Yellow Perch & 1 Smallmouth Bass	5
9/4/2016	Troy	Cabinet Gorge Reservoir	6 Smallmouth Bass	1

LIVE BAIT OTHER THAN FISH

Live bait (including minnows or leeches) other than fish was used by 448 (<3%) anglers in 2016 interviewed at watercraft inspection stations [(Figure 10) (information from other FWP creel surveys not included here)]. Live animals such as mealworms, red worms, night crawlers, leeches, maggots, crayfish, reptiles, amphibians, and insects may be used as bait on all waters not restricted to artificial flies and lures, but live bait animals may not be imported into the state without authority from FWP. Anglers who use leeches in Montana must have purchased them within Montana or have a bill-of-sale from an FWP-approved out-of-state dealer. Leeches have the potential to transport pathogens on them or mussel larvae in the water that they are transported in.

Watercraft station inspectors confiscate leeches if the angler cannot prove that they were legally obtained. FWP inspectors encountered 2 cases of illegal leeches in 2016.

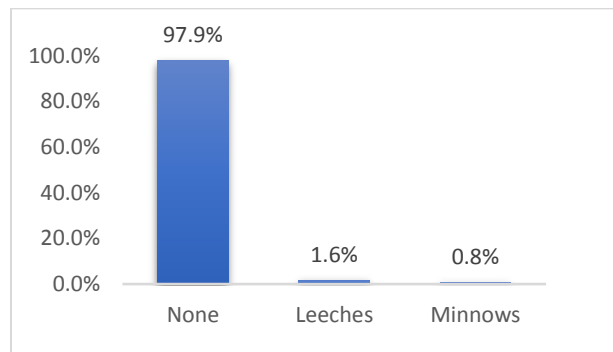


Figure 10. Percentage of Anglers Possessing Live Bait at the Time of Inspection in 2016

BOAT CONDITION AND CLEANING FREQUENCY

The overwhelming majority of boats (>99%) were clean upon their arrival at an FWP inspection station in 2016. However, based on the surveys that inspectors conducted, 39% of boaters and anglers do not routinely follow correct, clean, drain, and dry procedures to ensure that their boats and equipment are not in danger of spreading AIS into or within Montana. People were asked how frequently they clean their boats and equipment, and their responses were characterized as “Sufficient” if they cleaned between waters or every time they recreated, “Insufficient” if they clean their boat more than once per year but not every time, and “Never” if they never clean their boat or only do so less than once a year (Figure 11). As discussed earlier, this lack of follow-through among the boating and angling public in taking the necessary precautions to avoid spreading AIS is problematic and tells us we need to improve outreach so people change their behavior and act responsibly. This will be a major focus of upcoming outreach and education efforts.

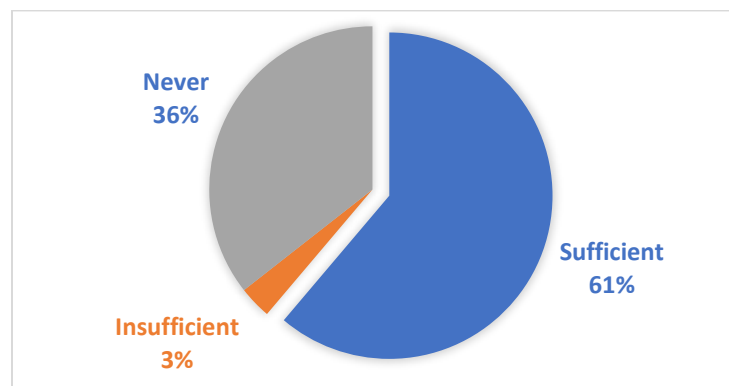


Figure 11. Frequency of Boat Cleaning Among Surveyed Users.

COMMERCIALY HAULED AND OVERSIZE VESSEL TRACKING AND INSPECTION

Montana Department of Transportation (MDT) helps support the AIS Program in several ways, including the tracking and inspection of commercially hauled and oversize vessels. Licensing and Permitting personnel with

MDT question commercial boat haulers about the origin and destination of vessels during the permitting process, and include a restriction on permits requiring boat haulers to contact FWP upon entry into Montana. Staff with the FWP AIS Program receive notifications for all permitted vessels entering the state, and follow up with all boats whose destination is Montana, including providing an inspection prior to launch if that is warranted. Montana forwards all notifications on to our cohorts in neighboring states. Most commercially hauled boats (122, 87%) are just passing through Montana (Figure 12), and of those, 87% are from eastern states. 5% of commercially hauled watercraft came from MT heading to other states. Of the 11 permits (8%) that are destined for Montana, 1 came from western states, 9 from eastern States, and 1 came from a southern state. The Flathead Lake area (Kalispell, Polson, Dayton) was the most common destination in 2016, followed by Helena and Libby. Motor Carrier Services (MCS of MDT) officers also inspect boats at weigh stations as their other job duties allow, which included the inspection of 163 boat shipments.

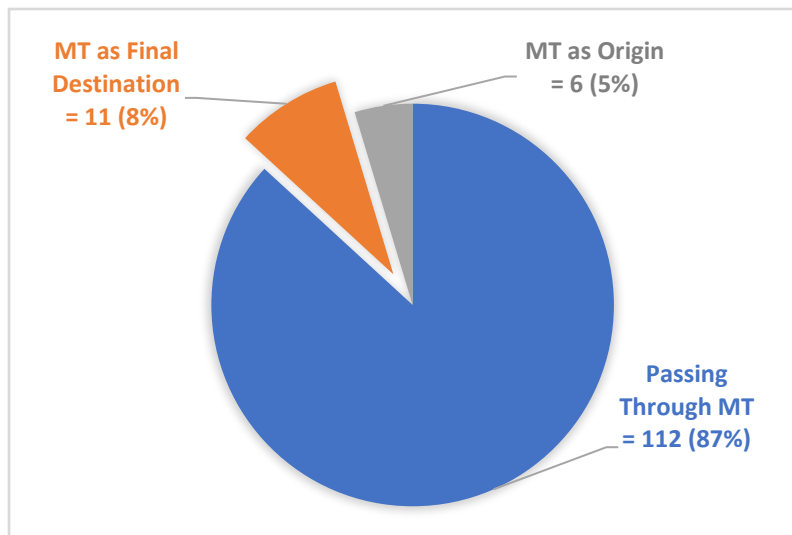


Figure 12. Percentage of Commercially-Hauled Boats Bound for MT

SUMMARY

The 2016 watercraft inspection season was highly successful. It remained difficult to staff the far eastern watercraft inspection stations. We also rose to the challenge with PKD and the subsequent restrictions on the Yellowstone River. Overall, FWP recruited many outstanding people to serve in inspector positions across the state. Their professionalism and dedication to this issue were instrumental in stations running smoothly and in getting people checked and on their way as quickly as possible. The implementation of the raffle plus the purchase of three additional large electronic reader boards improved compliance and boosted public support of the program.

Knowledge and awareness of the issues surrounding AIS continues to rise, but behavior remains largely unchanged. Outreach and education efforts need to be continued until water users not only know about the problem, but change their behavior and clean, drain, and dry their boats and equipment every time they move between waterbodies. The AIS program will attempt to address these areas of weakness in future strategies. FWP looks forward to continued successful collaboration on AIS issues with MDA, DNRC, MDT, and other partner agencies and groups.

Finally, our monitoring program did detect a positive sample of invasive mussel veligers at Tiber Reservoir and a suspect sample at Canyon Ferry Reservoir. Looking forward to 2017 watercraft inspection and decontamination stations will be critical in preventing and containing the transmission of AIS not only from these two waterbodies but to and from all waterbodies coming into, within, or out of Montana.

APPENDIX A. ORIGIN OF SURVEYED WATER USERS

State/Province of Origin	# of Water Users	% of Total Inspections
MT - Montana	32,766	82.9%
WA - Washington	1,438	3.6%
ID - Idaho	1,433	3.6%
OR - Oregon	406	1.0%
CA - California	357	0.9%
CO - Colorado	314	0.8%
UT - Utah	310	0.8%
WY - Wyoming	278	0.7%
AB - Alberta, CAN	265	0.7%
AZ - Arizona	207	0.5%
ND - North Dakota	187	0.5%
NV - Nevada	116	0.3%
FL - Florida	110	0.3%
BC - British Columbia, CAN	105	0.3%
MN - Minnesota	104	0.3%
TX - Texas	98	0.2%
MI - Michigan	83	0.2%
SD - South Dakota	78	0.2%
WI - Wisconsin	75	0.2%
IA - Iowa	73	0.2%
AK - Alaska	55	0.1%
IL - Illinois	50	0.1%
MO - Missouri	48	0.1%
TN - Tennessee	44	0.1%
IN - Indiana	42	0.1%
NY - New York	41	0.1%
OH - Ohio	37	0.1%
OK - Oklahoma	33	0.1%
NC - North Carolina	32	0.1%
PA - Pennsylvania	31	0.1%
NM - New Mexico	24	0.1%
SC - South Carolina	24	0.1%
AR - Arkansas	21	0.1%

State/Province of Origin	# of Water Users	% of Total Inspections
AL - Alabama	18	0.0%
VA - Virginia	15	0.0%
GA - Georgia	14	0.0%
NH - New Hampshire	13	0.0%
SK - Saskatchewan, CAN	13	0.0%
KS - Kansas	12	0.0%
MA - Massachusetts	12	0.0%
MS - Mississippi	12	0.0%
NB - New Brunswick, CAN	12	0.0%
ON - Ontario, CAN	12	0.0%
NE - Nebraska	11	0.0%
WV - West Virginia	10	0.0%
KY - Kentucky	9	0.0%
CT - Connecticut	8	0.0%
LA - Louisiana	8	0.0%
VT - Vermont	8	0.0%
ME - Maine	5	0.0%
MD - Maryland	4	0.0%
QC - Québec, CAN	4	0.0%
DE - Delaware	3	0.0%
NJ - New Jersey	3	0.0%
RI - Rhode Island	3	0.0%
DC - District of Columbia	2	0.0%
PE – Pr. Edward Island, CAN	2	0.0%
MB - Manitoba, CAN	1	0.0%
NS - Nova Scotia, CAN	1	0.0%
No information available	21	0.1%
Total	39,522	100%

APPENDIX B. THE TOP 45 PREVIOUSLY VISITED WATERBODIES.

The top 45 waterbodies that surveyed water users had visited in the last 30 days.

Destination Water Body	# of Inspections	Percent of Total Inspections
Flathead Lake, MT	2,140	5.4%
Noxon Rapids Reservoir, MT	2,135	5.4%
Blackfoot River, MT	2,113	5.3%
Salmon Lake, MT	1,349	3.4%
Missouri River, MT	1,228	3.1%
Clark Fork River, MT	1,218	3.1%
Browns Lake, MT	1,206	3.1%
Holter Lake, MT	1,192	3.0%
Bull Lake, MT	974	2.5%
Seeley Lake, MT	963	2.4%
Fort Peck Reservoir, MT	931	2.4%
Canyon Ferry Reservoir, MT	872	2.2%
Bighorn Reservoir (Yellowtail), MT	753	1.9%
Tongue River - Unspecified Location, MT	667	1.7%
Placid Lake, MT	615	1.6%
Bitterroot River, MT	566	1.4%
Hauser Lake, MT	497	1.3%
Flathead River, MT	437	1.1%
Swan Lake, MT	411	1.0%
Como Lake, MT	401	1.0%
Lake Pend Oreille, ID	399	1.0%
Bighorn River, MT	379	1.0%
Georgetown Lake, MT	376	1.0%
Yellowstone River, MT	374	0.9%
Lake Coeur d'Alene, ID	343	0.9%
Tongue River Reservoir, MT	330	0.8%
Upsata Lake, MT	328	0.8%
Lake Koocanusa, MT	320	0.8%
Kootenai River, MT	313	0.8%
Echo Lake (Flathead Co.), MT	244	0.6%
Cooney Reservoir, MT	224	0.6%
Madison River, MT	223	0.6%
Lake Mary Ronan, MT	207	0.5%
Bighole River, MT	182	0.5%
Holland Lake, MT	177	0.4%
Savage Lake, MT	175	0.4%
Lake Alva, MT	175	0.4%
Smith River, MT	174	0.4%
Glacier National Park, MT	168	0.4%
Blackfoot River, MT	165	0.4%
Clearwater River, MT	162	0.4%
Harpers Lake, MT	153	0.4%
Cabinet Gorge Reservoir, MT	131	0.3%
Alvord Lake, MT	112	0.3%
Spar Lake, MT	111	0.3%

APPENDIX C. THE TOP 45 DESTINATION WATERBODIES.

The top 45 waterbodies that surveyed water users indicated as destinations following the inspection.

Destination Water Body	# of Inspections	Percent of Total Inspections
Flathead Lake, MT	5,217	13.2%
Blackfoot River, MT	2,242	5.7%
Salmon Lake, MT	2,064	5.2%
Seeley Lake, MT	1,905	4.8%
Noxon Rapids Reservoir, MT	1,780	4.5%
Fort Peck Reservoir, MT	1,378	3.5%
Browns Lake, MT	1,247	3.2%
Missouri River, MT	1,225	3.1%
Holter Lake, MT	1,205	3.0%
Clark Fork River, MT	1,088	2.8%
Placid Lake, MT	1,041	2.6%
Flathead River, MT	927	2.3%
Bull Lake, MT	910	2.3%
Canyon Ferry Reservoir, MT	880	2.2%
Swan Lake, MT	843	2.1%
Glacier National Park, MT	664	1.7%
Lake Koocanusa, MT	591	1.5%
Lake Mary Ronan, MT	527	1.3%
Bighorn Reservoir (Yellowtail), MT	497	1.3%
Holland Lake, MT	473	1.2%
Kootenai River, MT	402	1.0%
Hauser Lake, MT	401	1.0%
Echo Lake (Flathead Co.), MT	393	1.0%
Upsata Lake, MT	376	1.0%
Georgetown Lake, MT	370	0.9%
Bitterroot River, MT	360	0.9%
Lake Alva, MT	331	0.8%
Yellowstone River, MT	316	0.8%
Tongue River - Unspecified Location, MT	287	0.7%
Whitefish Lake, MT	263	0.7%
Clearwater River, MT	261	0.7%
Madison River, MT	256	0.6%
Harpers Lake, MT	245	0.6%
Bighorn River, MT	238	0.6%
North Fork Flathead River, MT	226	0.6%
Blackfoot River, MT	218	0.6%
Lake Pend Orielle, ID	217	0.5%
Cooney Reservoir, MT	213	0.5%
Como Lake, MT	211	0.5%
Hungry Horse Reservoir, MT	208	0.5%
Lindbergh Lake, MT	200	0.5%
Savage Lake, MT	161	0.4%
Tongue River Reservoir, MT	153	0.4%
Lake Coeur d'Alene, ID	145	0.4%
Thompson Falls Reservoir, MT	141	0.4%